Schaumberger, Norman, *Hofstra University, Hempstead, NY*

Schwenk, Allen, *Western Michigan University, Kalamazoo, MI*

Sherman, Gary, *Rose-Hulman Institute of Technology, Terre Haute, IN*

Shreve, Warren, *North Dakota State University, Fargo, ND*

Smith, David, *Duke University, Durham, NC*

Stein, Sherman, *University of California, Davis, CA*

Steinbach, Peter, *Albuquerque Technical-Vocational Institute, Albuquerque, NM*

Stone, Alexander, *University of New Mexico, Albuquerque, NM*

Straffin, Jr., Philip, *Beloit College, Beloit, WI*

Strogatz, Steven, *Cornell University, Ithaca, NY*

Stroyan, Keith, *University of Iowa, Iowa City, IA*

Tan, Lin, *West Chester University of Pennsylvania, West Chester, PA*

Tanis, Elliot, *Hope College, Holland, MI*

Thompson, Richard, *University of Arizona, Tucson, AZ*

Vanden Eynden, Charles, *Illinois State University, Normal, IL*

Wagon, Stan, *Macalester College, St. Paul, MN*

Watkins, John, *Colorado College, Colorado Springs, CO*

Wetzel, John, *University of Illinois, Urbana, IL*

Williams, Kenneth, *Carleton University, Ottawa, Ontario, Canada*

Zeilberger, Doron, *Temple University, Philadelphia, PA*

Index to Volume 71

AUTHORS

Aczél, János; Alsina, Claudi, *Trisection of Angles, Classical Curves, and Functional Equations*, 182–189

Adams, Colin C., *The Newest Inductee in the Number Hall of Fame*, 341–349

Alsina, Claudi, see Aczél, János

Anderson, Marlow; Feil, Todd, *Turning Lights Out with Linear Algebra*, 300–303

Armstrong, Gerald, see Lamoreaux, Jack

Ayoub, Ayoub B., *Triangles with the Same Centroid*, 221–224

Bagby, Richard J., *A Convergence of Limits*, 270–277

Bailey, Herbert; DeTemple, Duane, *Squares Inscribed in Angles and Triangles*, 278–284

Bajaj, Prem N., Math Bite: *Equality of Limits in Ratio and Root Tests*, 299

Baney, Douglas J., see Beslin, Scott J.

Beslin, Scott J.; Baney, Douglas J.; De Angelis, Valerio, *Small Denominators: No Small Problem*, 132–138

Bivens, Irl; Simoson, Andrew, *Beholding a Rotating Beacon*, 83–104

Bloom, David M., *A Quadratic Residues Parlor Trick*, 201–203

Bridger, Mark; Frampton, John, *Bounding Power Series Remainders*, 204–207

Cater, F.S., *Uniqueness of the Decomposition of Finite Abelian Groups: A Simple Proof*, 50–52

Corless, Robert M., *Variations on a Theme of Newton*, 34–41

Dang, Mai, see Martelli, Mario

Darst, Richard; Palagallo, Judith; Price, Thomas, *Fractal Tilings in the Plane*, 12–23

De Angelis, Valerio, see Beslin, Scott J.

Deiermann, Paul, see Mabry, Rick

Dence, Thomas, see Swain, Gordon

DeTemple, Duane, see Bailey, Herbert

Feigelstock, Shalom, *Comparing Sets*, 213–216

Feil, Todd, see Anderson, Marlow

Ford, Ben; Franzmeier, Cory; Gayle, Richard, *Confusing Clocks*, 190–195

Frampton, John, see Bridger, Mark

Frantz, Marc, *The Telescoping Series in Perspective*, 313–314

Franzmeier, Cory, see Ford, Ben

Gau, Yihnan David, *Proof Without Words: Double Angle Formulas*, 385

Gayle, Richard, see Ford, Ben

Giblin, Peter; Trout, Matthew, *Cusps on Wheels on Wheels on Wheels*, 309–313

Gordon, Russell A., *When is a Limit Function Continuous?*, 306–308

Grundman, H.G., *Unity in a Field*, 359

Hall, Leon M.; Roe, Robert P., *An Unexpected Maximum in a Family of Rectangles*, 285–291

Henle, Michael, *Will the Real Non-Euclidean Parabola Please Stand Up?*, 369–376

Hirschhorn, Michael D., *Two Diophantine Equations Studied by Ramanujan*, 386–388

Hungerbühler, Norbert, *Proof Without Words: Bijection Between Certain Lattice Paths*, 219

Kahan, Steven, *Perfectly Odd Cubes*, 131

Kalman, Dan, *A Lambda Slaughter*, 122

Kedlaya, Kiran S., *When is* $(xy+1)(yz+1)(zx+1)$ *a Square?*, 61–63

Klee, Victor; Reay, John R., *A Surprising but Easily Proved Geometric Decomposition Theorem*, 3–11

Kleiner, Israel, *A Historically Focused Course in Abstract Algebra*, 105–111

Kreminski, Rick, *Differentiating Among Infinite Series*, 42–50

Krier, Nicholas; Manvel, Bennet, *Counting Integer Triangles*, 291–295

Lamoreaux, Jack; Armstrong, Gerald, *The Fundamental Theorem of Calculus for Gauge Integrals*, 208–212

Lenard, Andrew, *What Can Be Learned From* $n < n!$*?*, 58–60

Mabry, Rick; Deiermann, Paul, *Proof Without Words: Adding Like Sines*, 130

Machover, Maurice, *The Square Root of Two is Irrational: Proof by Poem*, 131

Mallinson, Philip R., *Proof Without Words: Area Under a Polygonal Arch*, 141

Mallinson, Philip, *Proof Without Words: The Length of a Polygonal Arch*, 377

Manvel, Bennet, see Krier, Nicholas

Martelli, Mario; Dang, Mai; Seph, Tanya, *Defining Chaos*, 112–122

McWorter, Jr., William A.; Meyers, Leroy F., *Computing Eigenvalues and Eigenvectors Without Determinants*, 24–33

Meyers, Leroy F., see McWorter, Jr., William A.

Mezzino, Michael; Pinsky, Mark, *Leibnitz's Formula, Cauchy Majorants and Linear Differential Equations*, 360–368

Moran, D.A.; Stewart, B.M., *The Randomness of Remainders*, 139–141

Myers, Nadine C., *The Crossing Number of* $C_m \times C_n$*: A Reluctant Induction*, 350–359

Nanjundiah, T.S., *Math Bite: On* $n^{1/n} > (n+1)^{1/(n+1)}, n \geq 3$, 138

Nelsen, Roger B., *Proof Without Words: Sums of Integers as Sums of Cubes*, 65

Norwood, Rick, *Math Bite: Why* $2+2$ *Equals* 2×2, 60

Palagallo, Judith, see Darst, Richard

Pingya, Xu, *The Sufficient Condition for the Differentiability of Functions of Several Variables*, 297–299

Pinsky, Mark, see Mezzino, Michael

Pinter, Klara, *Proof Without Words: The Area of a Right Triangle*, 314

Pratt, Vaughan, *Math Bite: The Volume of a Cone, Without Calculus or Square Roots*, 376

Price, Thomas, see Darst, Richard

Reay, John R., see Klee, Victor

Ribenboim, Paulo, *Galimatias Arithmeticae*, 331–340

Roe, Robert P., see Hall, Leon M.

Saari, Donald G.; Valognes, Fabrice, *Geometry, Voting, and Paradoxes*, 243–259

Sagan, Hans, *Math Bite: On the Nowhere Differentiability of the Coordinate Functions of the Iséke Curve*, 296

Sanchis, Gabriela R., *Swapping Hats: A Generalization of Montmort's Problem*, 53–57

Schwenk, Allen J., *The Steady State Sabbatical Rate*, 195–200

Segercrantz, Jerry, *Inclusion-Exclusion and Characteristic Functions*, 216–218

Seph, Tanya, see Martelli, Mario

Simoson, Andrew, see Bivens, Irl

Sondow, Jonathan, *An Antisymmetric Formula for Euler's Constant*, 219–220

Sprows, David, *Digitally Determined Periodic Points*, 304–305

Stewart, B.M., see Moran, D.A.

Straffin, Jr., Philip D., *Liu Hui and the First Golden Age of Chinese Mathematics*, 163–181

Swain, Gordon; Dence, Thomas, *Archimedes' Quadrature of the Parabola Revisited*, 123–130

Tan, Lin, *Proof Without Words: Eisenstein's Duplication Formula* $2\csc(2\theta) = \tan\theta + \cot\theta$, 207

Thompson, Richard B., *Global Positioning System: The Mathematics of GPS Receivers*, 260–269

Trout, Matthew, see Giblin, Peter

Valognes, Fabrice, see Saari, Donald G.

Wise, David S., *Proof Without Words: A Generalization from Pythagoras*, 64

Zulli, Louis, *The Incredibly Knotty Checkerboard Challenge*, 378–385

TITLES

Antisymmetric Formula for Euler's Constant, An, by Jonathan Sondow, 219–220

Archimedes' Quadrature of the Parabola Revisited, by Gordon Swain and Thomas Dence, 123–130

Beholding a Rotating Beacon, by Irl Bivens and Andrew Simoson, 83–104

Bounding Power Series Remainders, by Mark Bridger and John Frampton, 204–207

Comparing Sets, by Shalom Feigelstock, 213–216

Computing Eigenvalues and Eigenvectors Without Determinants, by William A. McWorter, Jr. and Leroy F. Meyers, 24–33

Confusing Clocks, by Ben Ford, Cory Franzmeier, and Richard Gayle, 190–195

Convergence of Limits, A, by Richard J. Bagby, 270–277

Counting Integer Triangles, by Nicholas Krier and Bennet Manvel, 291–295

Crossing Number of $C_m \times C_n$: A Reluctant Induction, The, by Nadine C. Myers, 350–359

Cusps on Wheels on Wheels on Wheels, by Peter Giblin and Matthew Trout, 309–313

Defining Chaos, by Mario Martelli, Mai Dang, and Tanya Seph, 112–122

Differentiating Among Infinite Series, by Rick Kreminski, 42–50

Digitally Determined Periodic Points, by David Sprows, 304–305

Fractal Tilings in the Plane, by Richard Darst, Judith Palagallo, and Thomas Price, 12–23

Fundamental Theorem of Calculus for Gauge Integrals, The, by Jack Lamoreaux and Gerald Armstrong, 208–212

Galimatias Arithmeticae, by Paulo Ribenboim, 331–340

Geometry, Voting, and Paradoxes, by Donald G. Saari and Fabrice Valognes, 243–259

Global Positioning System: The Mathematics of GPS Receivers, by Richard B. Thompson, 260–269

Historically Focused Course in Abstract Algebra, A, by Israel Kleiner, 105–111

Inclusion-Exclusion and Characteristic Functions, by Jerry Segercrantz, 216–218

Incredibly Knotty Checkerboard Challenge, The, by Louis Zulli, 378–385

Lambda Slaughter, A, by Dan Kalman, 122

Leibnitz's Formula, Cauchy Majorants and Linear Differential Equations, by Michael Mezzino and Mark Pinsky, 360–368

Liu Hui and the First Golden Age of Chinese Mathematics, by Philip D. Straffin, Jr., 163–181

Math Bite: Equality of Limits in Ratio and Root Tests, by Prem N. Bajaj, 299

Math Bite: On $n^{1/n} > (n+1)^{1/(n+1)}, n \geq 3$, by T.S. Nanjundiah, 138

Math Bite: On the Nowhere Differentiability of the Coordinate Functions of the Iséke Curve, by Hans Sagan, 296

Math Bite: The Volume of a Cone, Without Calculus or Square Roots, by Vaughan Pratt, 376

Math Bite: Why $2+2$ *Equals* 2×2, by Rick Norwood, 60

Newest Inductee in the Number Hall of Fame, The, by Colin C. Adams, 341–349

Perfectly Odd Cubes, by Steven Kahan, 131

Proof Without Words: A Generalization from Pythagoras, by David S. Wise, 64

Proof Without Words: Adding Like Sines, by Rick Mabry and Paul Deiermann, 130

Proof Without Words: Area Under a Polygonal Arch, by Philip R. Mallinson, 141

Proof Without Words: Bijection Between Certain Lattice Paths, by Norbert Hungerbühler, 219

Proof Without Words: Double Angle Formulas, by Yihnan David Gau, 385

Proof Without Words: Eisenstein's Duplication Formula $2\csc(2\theta) = \tan\theta + \cot\theta$, by Lin Tan, 207

Proof Without Words: Sums of Integers as Sums of Cubes, by Roger B. Nelsen, 65

Proof Without Words: The Area of a Right Triangle, by Klara Pinter, 314

Proof Without Words: The Length of a Polygonal Arch, by Philip Mallinson, 377

Quadratic Residues Parlor Trick, A, by David M. Bloom, 201–203

Randomness of Remainders, The, by D.A. Moran and B.M. Stewart, 139–141

Small Denominators: No Small Problem, by Scott J. Beslin, Douglas J. Baney, and Valerio De Angelis, 132–138

Square Root of Two is Irrational: Proof by Poem, The, by Maurice Machover, 131

Squares Inscribed in Angles and Triangles, by Herbert Bailey and Duane DeTemple, 278–284

Steady State Sabbatical Rate, The, by Allen J. Schwenk, 195–200

Sufficient Condition for the Differentiability of Functions of Several Variables, The, by Xu Pingya, 297–299

Surprising but Easily Proved Geometric Decomposition Theorem, A, by Victor Klee and John R. Reay, 3–11

Swapping Hats: A Generalization of Montmort's Problem, by Gabriela R. Sanchis, 53–57

Telescoping Series in Perspective, The, by Marc Frantz, 313–314

Triangles with the Same Centroid, by Ayoub B. Ayoub, 221–224

Trisection of Angles, Classical Curves, and Functional Equations, by János Aczél and Claudi Alsina, 182–189

Turning Lights Out with Linear Algebra, by Marlow Anderson and Todd Feil, 300–303

Two Diophantine Equations Studied by Ramanujan, by Michael D. Hirschhorn, 386–388

Unexpected Maximum in a Family of Rectangles, An, by Leon M. Hall and Robert P. Roe, 285–291

Uniqueness of the Decomposition of Finite Abelian Groups: A Simple Proof, by F.S. Cater, 50–52

Unity in a Field, by H.G. Grundman, 359

Variations on a Theme of Newton, by Robert M. Corless, 34–41

What Can Be Learned From $n < n!$*?*, by Andrew Lenard, 58–60

When is $(xy+1)(yz+1)(zx+1)$ *a Square?*, by Kiran S. Kedlaya, 61–63

When is a Limit Function Continuous?, by Russell A. Gordon, 306–308

Will the Real Non-Euclidean Parabola Please Stand Up?, by Michael Henle, 369–376

PROBLEMS

The letters P, Q, *and* S *refer to Proposals, Quickies, and Solutions, respectively; page numbers appear in parentheses. For example, P1539(66) refers to Proposal 1539, which appears on page 66.*

February: P1539–1543; Q874–876; S1514–1518

April: P1544–1548; Q877-879; S1519–1523

June: P1549–1553; Q880–882; S1524–1528

October: P1554–1558; Q883–884; S1529–1533

December: P1559–1563; Q885–886; S1534–1538

1996 MathCamp Students of U. of Washington, P1544(142)

Abad, Vic, S1526(228)

Akhlaghi, Reza and Sami, Fary, S1515(69)

Alkan, Emre, P1561(389)

Bailey, Robert, see White, Homer

Baker, John and Lawrence, John, S1521(146)

Baker, Matt, Q874(67)

Beasley, Brian D.; Jones, Lenny; Blount, Karen; Reigle, Dennis; and Stockslager, Beth, S1538(395)

Beck, Matthias; Tefera, Akalu; and Zeleke, Melkamu, S1534(390)

Bencze, Mihály, P1550(225); P1555(315); Q876(67)

Beslin, Scott, see Wickner, John

Binz, J.C., S1518(72)

Blount, Karen, see Beasley, Brian D.

Blount, Karen, see Reigle, Dennis

Boase, Mansur, P1558(316)

Bracken, Paul, see Donini, Daniele

Chao, Wu Wei, P1541(66); P1552(225); P1560(389); P1563(390)

de Angelis, Valerio, see Wickner, John

Deutsch, Emeric, Q884(316)

Donini, Daniele and Bracken, Paul, S1523(149)

Galperin, Gregory and Gauchman, Hillel, P1556(315)

Gauchman, Hillel, see Galperin, Gregory

Golomb, Michael, P1540(66); P1543(67)

Grossman, Jerrold W. and Turett, Barry, P1542(67)

Holshouser, Arthur L., see Klein, Benjamin G.

Horrigan, Frank A. and Shapiro, Lou, S1536(392)

Jager, Thomas, S1522(148)

Jones, Lenny, see Beasley, Brian D.

Just, Erwin, P1545(142)

Kappus, Hans and Sinefakopoulos, Achilleas, S1532(320)

Klamkin, Murray S., Q883(316)

Klein, Benjamin G. and Holshouser, Arthur L., P1546(142)

Knuth, Donald, P1539(66)

Lakshmanan, Neela, see Young, Robert L.

Lawrence, John, see Baker, John

Lord, Nick, see Noltie, Stephen

Mallahi, Keivan, Q885(390)

Miller, G.R., S1517(71)

Morris, Howard Cary, P1554(315); P1551(225); S1519(144)

Mycielski, Jan, Q879(143)

Newcomb, William A., S1516(70)

Nieto, José H., S1525(227)

Noltie, Stephen; Lord, Nick; and Vowe, Michael, S1530(317)

Ovchinnikov, Sergei, Q881(226)

Pachter, Lior, S1514(67)

Peng, Gao, S1531(319)

Reigle, Dennis, see Beasley, Brian D.

Reigle, Dennis; Stockslager, Beth; and Blount, Karen, S1529(316)

Rey, Joaquin Gómez, P1559(389)

Richardson, Ken, P1548(143)

Rosenholtz, Ira, Q880(226)

Sami, Fary, see Akhlaghi, Reza

Sard, Eugene W., Q877(143)

Sastry, K.R.S., P1549(225)

Seiffert, Heinz-Jürgen, S1528(230)

Shapiro, Lou, see Horrigan, Frank A.

Sinefakopoulos, Achilleas, see Kappus, Hans

Singer, Nicholas C. and Western Maryland College Problems Group, S1527(228)

Stockslager, Beth, see Beasley, Brian D.

Stockslager, Beth, see Reigle, Dennis

Straffin, Jr., Philip D., S1537(394)

Tefera, Akalu, see Beck, Matthias

Tian, Zheng-Ping, Q886(390)

Turett, Barry, see Grossman, Jerrold W.

Vanden Eynden, Charles, Q878(143)

Vowe, Michael, see Noltie, Stephen

Wardlaw, William P., Q882(226)

Wee, Hoe Teck, Q875(67)

Western Maryland College Problems Group, S1533(321)

Western Maryland College Problems Group, see Singer, Nicholas C.

White, Homer and Bailey, Robert, P1547(143)

Wickner, John; Beslin, Scott; and de Angelis, Valerio, P1562(390)

Wong, Yan-loi, S1535(391)

Woo, Peter Y., P1557(316)

Yiu, Paul and Zhu, David, S1520(145)

Young, Robert L. and Lakshmanan, Neela, S1524(226)

Zeleke, Melkamu, see Beck, Matthias

Zhu, David, see Yiu, Paul

Zorn, Paul, P1553(226)